

**Claims.**

**1)** Recovery plant of fibers and substances to the tomato-peel providing an Archimedes screw (1) in where come, to an upper inlet (2), the working waste such as tomato-peels, seeds, molds and impurities for then going out from a lower outlet (3) and where said Archimedcs screw (1) is equipped with hole (4) with pipe (5) for water inlet; characterized in that :

- the working waste from the lower inlet (3) gravitationally arrive to a cyclone (6) with water where a first separation is actuated such as the tomato-peels float and stay on the surface whereas the molds, the impurities and the seeds precipitate on the bottom and through an opening (8), pipe lines and hand drive valves come to a separation filter (22) and, separated from the water, arrive into a collecting tank (23);

and that

- the floating tomato-peels arrive to a separation filter (27), placed in the upper part of the cyclone (6), which separates the peels from the water and send these peels onto a slanting collecting line (38) which de termirnes their falling into a compacting device (40), and that

- said compacting device (40) separates the peels to the residual water and, through an outlet (42), discharges the same inside a collecting tank (43) where comes, by a pipe and hand drive valve, the juice of tomato; and that

- tomato-peels and juice of tornato, through a lower opening (48) and by means of a removal pump (49), arrive in different pipes to reach a first disintegrator device (56), where a first disintegration is actuated, and a second disintegration device (58), where a second disintegration is made for then gravitationally falling

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inside a collecting tank (59) and then passing to a transferring pump (61); and that - through pipes and valves the flow of juice and peel of tomato arrives to a de-aerator (68) with a lower opening (69) from which the flow, by means of a vacuum pump (78), is sent to a homogenizer (81); and that

- the homogenized product is sent, through a pipe (82), to the production line to reach a concentrator.

2) Recovery plant of fibers and substances to the tomato-peel, according to the claim 1, characterized in that the cyclone (6) is dimensioned in relation to the quantity of product to work and so its dimensions or the number of cyclones (6) change of the base of the quantity of product to work.

3) Recovery plant of fibers and substances to the tomato-peel, as per claim 1, characterized in that the water discharged in the different phases arrives to a collecting tank (26) with a lower opening (33) and connects through a pipe (34) to a centrifugal pump (35) connects to the pipe 5 of water inlet so to realize a water recycling during the works.

4) Recovery plant of fibers and substances to the tomato-peel, as per claim 1, characterized in that in the first desintegrator device (56) the peel/juice product is broken up into small pieces till about two millimetres of medium diameter. while the second disintegrator device (58) actuates a frantumation to have a medium diameter that changes to 150 to 300 micron.

5) Recovery plant of fibers and substances to the tomato-peel, as per claim 1, characterized in that at the exit of the homogenizer (81) a product is obtained where is not possible the separation of the liquids and of the solid part of the product .